

## ABSTRACT

PT. Rajaa Naufal Independent exploration to determine the presence of iron ore in the mining license held. Iron ore is generally in the form of intrusion and boulders, so that a suitable research method used is the method of geoelectric resistivity 2D and Geomagnetic.

geoelectric resistivity 2D can give a general subsurface soil without excavation. Investigation of geoelectric resistivity using the Wenner-Schlumberger configuration. Geomagnetic useful method to determine the presence of magnetic objects beneath the earth surfaces by catching a wave beam magnetic anomalies.

Resistivity data retrieval using tools Nainura - NRD 22S. Data processed measurement results Res2DInv Program. Data processing is done by entering data into the program and then get the drawing for 2D modeling in the form of vertical trajectory geoelectric section. Geomagnetic using G-816 Magnetometer and data processing combined with results obtained geoelectric effect results in the form of iron ore region.

Having done the interpretation of the data then can be estimated iron ore resource about 184,704.1 m<sup>3</sup>. Race is considered the prospects for further investigation by core drilling (coring) or test pit is track 1, 2, 7, 5, 9, 10, 12, 13, 16 and 18. This can be seen in the 2D resistivity section.